CONTENTS

Vol. 5, No. 1 **March 1976**

Sequential Learning Employing Unfamiliar Teacher Hypothesis (SLEUTH) with Concurrent Estimation of Both the Parameters and Teacher Characteristics 1
Belur V. Dasarathy and A. L. Lakshminarasimhan

Applications of Graph Theory in Computer Systems 9
William S. Bowie

Toward a Theory of Encoded Data Structures and Data Translation 33
Ben Shneiderman and Stuart C. Shapiro

An Error-Correcting Syntactic Decoder for Computer Networks 45
L. W. Fung and K. S. Fu

An Off-Line Simulation System for Development of Real-Time FØRTRAN Programs 59
James Wm. White

Boolean Difference Techniques in Fault Tree Analysis 81
M. G. Thomason and E. W. Page

Vol. 5, No. 2 **June 1976**

Characterizing Sets of Data Structures by the Connectivity Relation 89
A. L. Furtado

Programming Recursively Defined Functions in FORTRAN 111
A. J. Guttmann

Exploratory Experiments in Programmer Behavior 123
Ben Shneiderman

An Algorithm for the Inference of Tree Grammars 145
R. C. Gonzalez, J. J. Edwards, and M. G. Thomason

Pattern Classes: A Technique for Recovering Their Distributions 165
Douglas Dorrough

Circular Codes and Synchronization 201
J.-L. Lassez

Vol. 5, No. 3 **September 1976**

Cliques of a Graph—Variations on the Bron–Kerbosch Algorithm 209
H. C. Johnston

Detection of Parallelism Between Statements by Decomposing into Separate Sequential Processes 239
Mamoru Maekawa

An Algebraic Technique for Context-Sensitive Parsing 257
Robert L. Cannon, Jr.

Observations of a Firm's Information Processing with a Data Base Management System 277
Hirohide Hinomoto

Vol. 5, No. 4 **December 1976**

An Application of Coroutines and Backtracking in Interactive Systems 303
William Stallings

Theoretical Comparisons of Search Strategies in Branch-and-Bound Algorithms 315
Toshihide Ibaraki

Using Euler Partitions to Edge Color Bipartite Multigraphs 345
Harold N. Gabow

Binary Input, Output, and Manipulation Extensions of Conversational Programming with Some Biological Applications 357
Russell V. Skavaril and Owen R. Miller